

# [MONOLITHIC HARD PELLICLE]

## Abstract

A monolithic optical pellicle and method of making used to protect a photomask during photolithography processing. The monolithic optical pellicle is comprised of a pellicle plate having a recessed central portion integrally formed with a perimeter frame of the pellicle plate such that it is a one-piece optical pellicle. The monolithic optical pellicle comprises a material of sufficient rigidity to minimize distortions in and maximize durability of the pellicle when used in combination with the recessed portion having a thickness that prevents sagging thereof due to applied forces on the resultant monolithic optical pellicle. This recessed central portion is the optical pellicle portion of the present monolithic optical pellicle, while the integral perimeter frame is used to attach the monolithic optical pellicle at the desired stand-off distance to a photomask. The monolithic optical pellicle preferably comprises a material that is transparent to an exposure field at about 157nm wavelengths.